PROCESS FOR MAKING AN ALDEHYDE

The present application is a continuation-in-part of pending application U.S.S.N. 10/302,636 filed November 22, 2002, the entire contents of which is herein incorporated by reference, which claims priority from the provisional application U.S.S.N. 60/334,588 filed December 3, 2001, now abandoned.

The present invention relates to a process for reacting a dihalogenated compound with an organic sulfoxide compound to form an aldehyde compound.

Background of the Invention

Aromatic aldehyde compounds are useful for making numerous other compounds, as well as for their own properties. For example, in Method A shown in the description below an aldehyde undergoes chemical reactions to form a compound which is a $cPLA_2$ inhibitor having a variety of therapeutic uses, as described below. It is often necessary or desirable to obtain such an aldehyde from a corresponding dihalogenated aromatic compound.

Certain methods for converting a dihalogenated aromatic compound to its corresponding aldehyde are known. Typically, they require harsh reaction conditions, which generally involve high temperatures and as a strong acid, such as concentrated sulfuric acid, or a strong base, such as aqueous sodium hydroxide. Examples of these methods are found in Chung and Kim, *Tetrahedron*, 1995, *51(46)*, 12549-12562, and Goodman, et al., *J. Am. Chem. Soc.*, 1995, *117*, 8447-8455.

Conversion of dihalo aromatics to aldehydes has been shown to occur by reaction with sodium carbonate (Adediran, et al., *Bioorg. Med. Chem.*, 2001, *42*, 1175-1183), and with sodium bicarbonate (Langer, et al., *Bioorg. Med. Chem.*, 2001, *9*, 677-694), with heavy metal salts like silver nitrate (Semmelhack, et al., *J. Am. Chem. Soc.* 1994, 116, 7108).

It has been reported that benzal bromides may be hydrolyzed to the corresponding benzaldehyde using potassium carbonate in dimethylsulfoxide